Examiner also requested a new abstract and title. The applicants have complied with the Examiner's request. To the extent these amendments do not overcome the rejections, the applicants respectfully traverse these rejections.

Rejection of Claim 30

Claim 30 was rejected under 35 U.S.C. §112, first paragraph. The Examiner stated that claim 30 contained new matter. The applicants respectfully disagree. The applicants again believe that support for claim 30 can be found in the examples, in particular examples 1 and 23 for the ranges. In Example 23, the copolymer contained 2.5 % by weight of ethylene distributed randomly. Therefore, the ethylene propylene copolymer contained 97.5 % by weight of propylene. In Example 1, the molding composition was propylene homopolymer with no ethylene. Therefore the applicants again believe that claim 30 is supported by Examples 1 and 23. For the above reasons, this rejection should be withdrawn.

Rejection of Claims 15, 17-19, 21-25 and 27-31

Claims 15, 17-19, 21-25 and 27-31 were rejected under 35 U.S.C. §112, first paragraph. With respect to paragraphs 5b, claim 17 states that the DSC spectrum is determined with a heating/cooling rate of 20°C. Again, this information is sufficient to a person of ordinary skill in the art to repeat the measurement (*see* the previously submitted copy of pages 589 and 590 of Ser van der Ven, "Polypropylene and other Polyolefins"). The first heating and cooling step of the DSC measurement give the standardized thermal history, which is necessary to obtain reliable data. The amended claim 17 then states that "the composition is characterized by a broad melting range". It

is clear that the melting peak is the peak of the DSC spectrum which showing a maximum in the curve, the half-intensity width of the melting peak is the width at exactly half the height of the maximum of the curve and the width at quarter peak height is the width at exactly the quarter height of the curve. The different melting points of the at least two polyolefins are clearly related to the melting points of the components. See page 3, lines 20-25 of the specification. *See* also page 2, lines 26-30 of the specification. The applicants believe that this reference is more than an opinion as alleged by the Examiner. This reference confirms what is known to of ordinary skill in the art.

The Court of Custom Appeals stated at page 369 In re Marzocchi and Horton, 169 USPQ 367, 369 (CCPA 1971),

> "The first paragraph of §112 requires nothing more than objective enablement. How such a teaching is set forth, either by the use of illustrative examples or by broad terminology , is of no importance." (emphasis added)

The applicants believe that it is clear from their specification, that there is adequate support and enablement. See page 3, lines 20-25 of the specification. *See* also page 2, lines 26-30 of the specification.

The Court of Custom Appeals further stated at page 369 in In re Marzocchi and Horton, 169 USPQ 367, 369 (CCPA 1971),

> As a matter of Patent Office practice, then, a specification disclosure which contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as in compliance with the enabling requirement of the first paragraph of §112 unless there is reason to doubt the objective truth of the statements contained therein which **must** be relied on for enabling support. (In re Marzocchi and Horton, 169 USPQ 367, 369 (CCPA 1971). (emphasis added)

The applicants do not believe that there is any reason to doubt the objective truth of the statements

presented in the original declaration filed with the application. For the above reasons, this rejection should be withdrawn.

§112, Second Paragraph Rejection

Claims 15, 17-19, 21-25 and 27-31 were rejected under 35 U.S.C. §112, second paragraph. The applicants believe that the claims as amended are in compliance with 35 U.S.C. §112, second paragraph. It appears that the Examiner did not fully recognize the meaning of the different melting points of the at least two polyolefins in the molding composition (paragraph 15.a of the Office Action). The mixture of metallocenes leads to a mixture of polyolefins. If the metallocenes are used separately the resulting polyolefins must have melting points that differ by at least 5°C. This is the only way to determine this feature since a fractionation of the molding composition according to melting peaks might only be possible if the melting ranges of the components are totally separated. This is the way a person of ordinary skill in the art will understand this feature.

Moreover, if two polyolefins, whose melting points differ by slightly more than 5°C, are mixed the resulting molding composition has normally only one broadened melting peak, as can be seen from the examples, *e.g.* example 1. Therefore, the Examiner is wrong in stating,

"[i]f there must be melting points differing by at least 5/C, then the claimed melting range must be at least bimodal" (also in paragraph 15.a).

The Examiner is incorrect as is shown in the last sentence of paragraph 13. The width of the melting peak mentioned in claim 17 is the width of the whole melting range of the resulting molding composition.

With respect to the rejection of paragraph 15(b) the applicants believe that the claim is clear to one of ordinary skill in the art. The reference to the olefin of the formula $R^aCH=CHR^b$ in claim

17 is for the co-polymerization of propylene with other olefins of the formula $R^aCH=CHR^b$. Therefore it still would be a polypropylene that could contain additional olefins of the specific formula. This is described in the specification in the last paragraph at the bottom of page 3 of the specification. Furthermore, it is described at page 12, lines 18-30 of the specification. The applicants therefore believe that this is clear to one of ordinary skill in the art and that this rejection should be withdrawn.

With respect to paragraph 15 (d) , when R^3 and R^4 together with the atoms connecting them form a ring would mean that the each R^3 and R^4 independently would have one of the definitions of R^3 and R^4, such as alkyl and together would form a ring. This is recognized language to one or ordinary skill in the art. For the above reasons this rejection should be withdrawn.

The applicants have amended claim 23 as suggested by the Examiner.

With respect to claim 24, the applicants believe that claim 24 is clear to one of ordinary skill in the art. When R^{11} and R^{12} together with the atoms connecting them form a ring would mean that the each R^{11} and R^{12} independently would have one of the definitions of R^{11} and R^{12}, such as alkyl and together with either the carbon or the M^2 would form a ring. This is recognized language to one or ordinary skill in the art. For the above reasons this rejection should be withdrawn.

Obviousness Double Patenting Rejection

Claims 15, 17-19, 21-25 and 27-31 are rejected under the judicially created Doctrine of Obviousness-Type Double Patenting as being unpatentable over the claims of Winter '886. Applicants do not believe the double patenting rejection is proper. The inventions are drawn to two different inventions. The claims of Winter '886 are drawn to a process to produce a polyolefin, having a broad molecular mass distribution while the claims in this application are drawn to a

process to make a molding composition. with polymers with a broad melting range. These are different inventions. For the above reasons, the applicants respectfully request that this rejection be withdrawn.

OBJECTION TO THE DISCLOSURE AND MINOR INFORMALITIES

In paragraph 19 a) of the Office Action, the Examiner questioned the temperature range. The temperature range at page 13, lines 32 - 32 is the technically relevant range of the polymerization temperature.

With respect to paragraph 19 b) of the Office Action, the results of the mixture of Comparative Example 2 is given at page 28, lines 12-17.

The applicants have supplied a new title and abstract as requested by the Examiner.

In addition, the applicants appreciate the Examiner pointing out the error with respect to claim 28. The applicants have corrected this error.

No additional fee is due. If there are any additional fees due in connection with the filing of this response, including any fees required for an additional extension of time under 37 C.F.R. 1.136, such an extension is requested and the Commissioner is authorized to charge or credit any overpayment to Deposit Account No. 03-2775.

For the reasons set forth above, Applicants believe that the claims are patentable over the references cited and applied by the Examiner and a prompt and favorable action is solicited. The applicants believe that these claims are in condition for allowance, however, if the Examiner disagrees, the applicants respectfully request that the Examiner telephone the undersigned at (302) 888-6270.

Respectfully submitted,

CONNOLLY BOVE LODGE & HUTZ LLP

By _____
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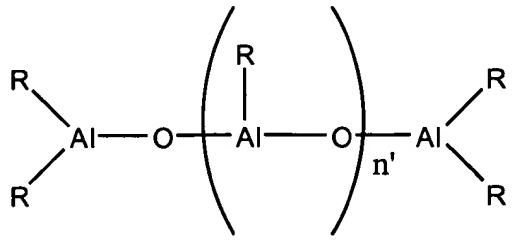
APPENDIX A

17. (Amended Four Times) A process for the preparation of a polyolefin molding composition comprising at least two polyolefinic components, wherein the composition is characterized by a broad melting range in a DSC spectrum determined with a heating/cooling rate 20° C/min and a melting peak, wherein the melting range maximum is between 120 and 165°C, the half-intensity width of the melting peak is broader than 10°C and the width determined at quarter peak height is greater than 15°C, wherein such process comprises the direct polymerization of propylene or copolymerization of propylene with olefins of the formula $R^aCH = CHR^b$, in which R^a and R^b are identical or different and are a hydrogen atom or an alkyl radical having 1 to 14 carbon atoms, or R^a and R^b, together with the atoms connecting them, form a ring, and wherein the [portion of] polymerized ethylene [on the polymerized monomer is so chosen that the ethylene content] content of the resulting polyolefin composition is from 0 to 2.5% by weight,

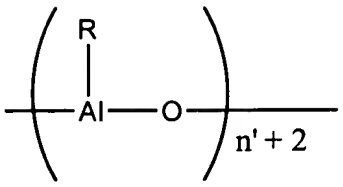
to at least two polyolefins of different melting points, wherein the melting points of the polyolefins must differ by at least 5° C, and wherein the polymerization is carried out at a temperature of from -60 to 200°C, and a pressure of from 0.5 to 100 bar, in solution, in suspension or in the gas phase, in the presence of a catalyst, wherein the catalyst comprises

(A) at least two racemic or s-symmetric metallocenes as transition-metal components and an aluminoxane of the formula II



(II)

and/or of the formula III

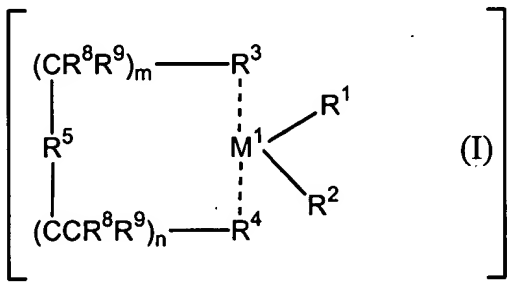


(III)

where in the formulae II and III, the radicals R may be identical or different are a C_1-C_6-alkyl group, a C_1-C_6-fluoroalkyl group, a C_6-C_{18}-aryl group, a C_6-C_{18}-fluoroaryl group or hydrogen, and n' is an integer from 0 to 50, and the aluminoxane component may additionally contain a compound of the formula AlR_3, or

(B) at least two racemic or s-symmetric metallocenes as transition-metal components and a salt-like compound of the formula R_xNH_{4-x} or of the formula $R_3PHBR'_4$ wherein x is 1, 2 or 3, R is identical or different and is alkyl or aryl, and R' is aryl, which may also be fluorinated or partly fluorinated,

where the transition-metal component used comprises at least two metallocenes of the formula I:



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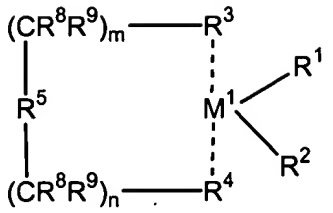

(I)

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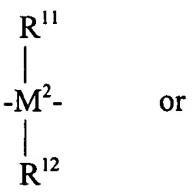
in which

M^1 is Zr or Hf,

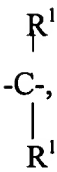
R^1 and R^2 are identical or different and are a hydrogen atom, a C_1-C_{10}- alkyl group, a C_1-C_{10}-alkoxy group, a C_6-C_{10}-aryl group, a C_6-C_{10}-aryloxy group, a C_2-C_{10}-alkenyl group, a C_7-C_{40}-arylalkyl group, a C_7-C_{40}-alkylaryl group, a C_8-C_{40}-arylalkenyl group, or a halogen atom,

R^3 and R^4 are identical or different and are indenyl, cyclopentadienyl or fluorenyl which are optionally substituted with substituents as defined for R^{11} and R^{12} and where the substituents are identical or different or form together with the atoms connecting them a ring,

R^5 is



or



where R^{11} and R^{12} are identical or different and are a hydrogen atom, a halogen atom, a C_1-C_{10}-alkyl group, a C_1-C_{10}-fluoroalkyl group, a C_6-C_{10}-aryl group, a C_6-C_{10}-fluoraryl group, a C_1-C_{10}-alkoxy group, a C_2-C_{10}-alkenyl group, a C_7-C_{40}-arylalkyl group, a C_8-C_{40}-arylalkenyl group or a C_7-C_{40}-alkylaryl group, or R^{11} and R^{12} together with the atoms connecting them, form a ring,

M^2 is silicon or germanium,

R^8 and R^9 are identical or different and are as defined for R^{11} and

m and n are identical or different and are zero or 1 and wherein for at least one of the at least two metallocenes R^3 is a substituted indenyl or an optionally substituted fluorenyl [which is optionally substituted].

23. (Amended One Time) The process as claimed in claim 20, wherein said two different metallocenes are rac-phenylmethylsilyl(indenyl)$_2$HfCl$_2$ and rac-dimethylsilyl(2-methyl-4-phenyl-1-indenyl)$_2$ Zr Cl$_2$.

28. (Amended One Time) The process as claimed in claim 25, wherein **[R^5]** -$(CR^8R^9)_m$-R^5-$(CR^8R^9)_n$ is ethylene or CH_3SiCH_3.

15. The process as claimed in claim 17, wherein the metallocenes are selected from the group consisting of rac-$Me_2Si(2\text{-methyl-1-indenyl})_2ZrCl_2$, rac-$Me_2Si(indenyl)_2HfCl_2$, pheny(methyl)$Si(2\text{-methyl-1-inenyl})_2ZrCl_2$, $Me_2Si(2\text{-methyl-4-phenyl-1-indenyl})_2ZrCl_2$, $Me_2Si(2\text{-methyl-1-indenyl})_2ZrCl_2$, $Me_2Si(indenyl)_2HfCl_2$, phenyl(methyl)silyl$(indenyl)_2HfCl_2$, rac-ethylene$(2\text{-methyl-1-indenyl})_2ZrCl_2$, rac-$Me_2Si(2$-methyl-4-phenyl-1-indenyl$)_2ZrCl_2$, rac-ethylidene(2-methyl-4,6-diisopropyl-1-indenyl$)_2ZrCl_2$, rac-$Me_2Si(2\text{-methyl-4,5-benzoindenyl})_2ZrCl_2$, dimethylmethylene (9-fluorenyl) (cyclopentadienyl)$ZrCl_2$, phenyl(methyl)methylene(9-fluorenyl)(cyclopentadienyl)$ZrCl_2$, rac-phenyl(methyl)silyl(2-methyl-4,6-diisopropyl-1-indenyl$)_2ZrCl_2$, Ph(Me)$Si(2\text{-methyl-4-phenyl-1-indenyl})_2ZrCl_2$, rac-$Me_2Si(2$-methyl-4-(1-naphthyl)-1-indenyl$)_2ZrCl_2$, rac-$Me_2Si(2,5,6\text{-trimethyl-1-indenyl})_2ZrCl_2$, rac-$Me_2Si(4,5$-benzo-1-indenyl$)_2ZrCl_2$ and rac-$Me_2Si(4\text{-phenyl-1-indenyl})_2ZrCl_2$.

18. (Amended Once) The process as claimed in claim 17, wherein the process comprises the direct polymerization of propylene or copolymerization of propylene with an olefin selected from the group consisting of ethylene, 1-butylene, 1-hexene, 4-methyl-1-pentene, 1-octene, norbornene, norbornadiene and mixtures thereof.

19. The process as claimed in claim 17, wherein R^1 and R^2 are identical or different and are a C_1-C_{10}- alkyl group, a C_1-C_{10}-alkoxy group, a C_6-C_{10}-aryl group, a C_6-C_{10}-aryloxy group or halogen.

21. The process as claimed in claim 20, wherein said two different metallocenes are rac-

dimethylsilyl(2-methyl-1-indenyl)$_2$ZrCl$_2$ and rac-dimethylsilyl(indenyl)$_2$ HfCl$_2$.

22. The process as claimed in claim 20, wherein said two different metallocenes are rac-phenylmethylsilyl(2-methyl-1-indenyl)$_2$ZrCl$_2$ and rac-dimethylsilyl(2-methyl-4-phenyl-1-indenyl)$_2$ ZrCl$_2$

25. (Once amended) The process as claimed in claim 17, wherein R^1 and R^2 are identical and are methyl or chlorine,

R^4 and R^3 are indenyl, cyclopentadienyl or fluorenyl, where these ligands may carry additional substituents as defined for R^{11}.

27. The process as claimed in claim 17, wherein said metallocenes are chiral metallocenes.

29. The process as claimed in claim 17, wherein M^1 is Zr for all the metallocenes of formula 1.

30. The process as claimed in claim 17, wherein the polyolefin molding composition is a homo or copolymer with a propylene content of from 97.5 to 100% by weight.

31. The process as claimed in claim 17, wherein the polyolefin molding composition is a homo polymer of propylene or a propylene ethylene copolymer with an ethylene content of up to 2.5% by weight.

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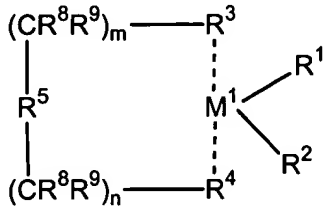
APPENDIX B

--ABSTRACT

A process for the preparation of polyolefin molding compositions which have a broad, bimodal or multimodal melting range in the DSC spectrum, where the melting range maximum is between 120 and 165 °C, are obtained by polymerization or copolymerization of at least two olefins to give polyolefins of different melting point. The olefins have the formula $R^aCH=CHR^b$, and the catalyst system comprises an aluminoxane and at least two transition-metal components of the formula I



(I)

in which

M^1 is Zr, Hf or Ti.- -